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# **PCB BASED PAINT BUILDING OPERATION & MAINTENANCE PLAN**

**Former Rainier Brewery  
3100 Airport Way  
Seattle, Washington 98134**

**JANUARY, 2007**

**VEI Project #061013**

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**Former Rainier Brewery  
3100 Airport Way  
Seattle, Washington 98134**

**Project Number: 061013**

**JANUARY, 2007**

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# INTRODUCTION

The following text presents the O&M Plan major elements:

- Emergency and Assistance Telephone Number
- Policy Statement
- Glossary of Terms
- Applicable Regulations
- Assessment of Conditions
- Monitoring and Sampling
- Selection of units for Testing
- Exposure Monitoring
- Training
- Medical Surveillance
- Personal Hygiene Practices
- Respiratory Protection
- Occupant Health & Safety
- Signage
- Work Practices
  - Operations & Maintenance (O&M)
  - Large Scale Interior Maintenance
  - Contract Work
- OSHA Record Keeping
- Waste Disposal
- Notifications
- Program Evaluation
- Appendix A - Lead/Polychlorinated Biphenyl Based Paint Deminimus Activities
- Appendix B – Non-Assessed Tasks Appendix C
- Appendix C – National Institute of Building Sciences Work Practices

## Emergency and Assistance Telephone Numbers

Emergency (Fire - Police - Rescue) - 24 hours #

911

CALL IMMEDIATELY FOR ANY EMERGENCY  
INCLUDING CHEMICAL SPILL, FIRE, PERSONAL  
SECURITY, INJURED OR SICK PERSON

Environmental Safety (Rainier Commons Main Office) (206) 447-0263

(Industrial Hygiene, Occupational Safety & Health,  
Hazardous Waste Management, Fire Protection,  
Radiation Safety, Insurance Services, Hazard  
Communication, Accident Investigation, Air  
Monitoring and Safety)

Vernon Environmental, Inc. (survey/abatement  
consultant)

(206) 686-2469 Office

(206) 686-2469 Mobile

## Policy Statement

### I. Background and Purpose

An exterior paint chip sample showed Polychlorinated Biphenyl (PCB) is present at a concentration of 2,300 parts per million (ppm).

The Lead/Polychlorinated Biphenyl-Based Paint Operation & Maintenance Plan's (L/PCB-BP) purpose is to provide a methodology for controlling the release of future paint chips containing PCBs from the exterior of the Rainier Common's buildings. **Lead Based Paint (LBP) regulatory management is applied to exterior PCB-based paint management in this O&M plan. Hence, future regulatory reference in this O&M plan to PCB-based paint will be referred to as Lead/Polychlorinated Biphenyl-Based Paint in an effort to establish an acceptable Operation & Maintenance methodology. The United States Environmental Protection Agency (US EPA) enforces PCB in paint on a case by case basis. The scope and budget for this project does not include notifying the US EPA for their review and acceptance of this O&M Plan.**

**Note: PCB regulations as promulgated under the Toxic Substances Control Act (TSCA), 40 CFR Part 761, must be strictly adhered to when removing, handling, storing, transporting and to the ultimate disposal of PCB containing substances.**

This is a statement of official Rainier Commons policy to establish the process for compliance with federal PCB regulations for concentrations greater than 50 ppm (40 CFR Part 761), Washington State PCB regulations for concentrations between 2.0 – 50 ppm (WAC 173-303), Lead-Based Paint Exposure in Construction (29 CFR 1926.62), Lead-Based Paint Exposure in General Industry (29 CFR 1910.1025), and Procedures for Abating Lead-Based Paint Containing Substances from Buildings (Washington Administrative Code WAC 296-155).

## **II. Scope**

This plan applies to all Rainier Commons employees where the handling of Lead/Polychlorinated Biphenyl-containing substances presents a risk of being exposed to Lead/Polychlorinated Biphenyl through inhalation, absorption or ingestion. It applies to work involving the disturbance of Lead/Polychlorinated Biphenyl-based paint. Employees exposed to Lead/Polychlorinated Biphenyl as part of normal repair and maintenance (O&M) of the Rainier Commons facility located at 3100 Airport Way South, Seattle, WA (the, "Facility") are covered under either Lead Exposure in Construction (29 CFR 1926) or Lead Exposure in General Industry (29 CFR 1910). Abatement, which is the intentional removal, replacement, or enclosure of items containing Lead-based paint in order to eliminate future exposure, is covered under Procedures for Abating Lead Containing Substances from Buildings (Washington Administrative Code WAC 296-155).

## **III. Policy**

Rainier Commons is dedicated to providing safe and healthful work facilities for employees, subcontractors, lessees, residents and visitors complying with federal and state occupational health and safety standards. The O&M Plan shall be implemented at the Facility where potential exposure to Lead/Polychlorinated Biphenyl may occur.

The Lead/Polychlorinated Biphenyl Management Plan shall be reviewed and evaluated for its effectiveness periodically, and updated as necessary.

## **IV. Duties and Responsibilities**

### **A. Rainier Commons shall:**

1. Develop and distribute the written Lead/Polychlorinated Biphenyl O&M Plan;
2. Assist in identifying employees and coordinate their training. (See Training Section for more specific training information). The training content will depend upon the nature of the activity:
  - a. For employees who have the potential to be exposed to Lead/Polychlorinated Biphenyl at any level, and are not working in construction, they must be informed annually of the contents of 29 CFR 1910.1025, Appendix A (Substance

Data Sheet for Occupational Exposure to  
Lead/Polychlorinated Biphenyl) and Appendix B  
(Employee Standard Summary).

- b. For employees who have the potential to be exposed to Lead/Polychlorinated Biphenyl at or above the action level of 30 micrograms per cubic meter ( $\mu\text{g}/\text{m}^3$ ), and are working in construction, must be provided a training program as outlined in 29 CFR 1926.62(l).
  - c. For employees who are exposed to Lead/Polychlorinated Biphenyl in any form, for example, painters and carpenters involved in the disturbance of Lead/Polychlorinated Biphenyl-based paint, and are not performing Lead/Polychlorinated Biphenyl-based paint abatement activities or construction, and are exposed to Lead/Polychlorinated Biphenyl in excess of  $30 \mu\text{g}/\text{m}^3$  on any day during a given year, must be provided a training program as outlined in 29 CFR 1910.1025(l)(1)(ii).
  - d. For employees performing Lead/Polychlorinated Biphenyl-based paint inspections, or performing Lead/Polychlorinated Biphenyl-based paint risk assessments, must attend Washington State Department of Community, Trade and Economic Development L/PCB-BP approved training courses as promulgated under WAC 365-230.
  - e. For employees performing Lead/Polychlorinated Biphenyl-based paint abatement, must attend WAC approved training courses.
  - f. Depending on the job description, such as project supervisor, project designer, etc., there are other accredited training courses. They are listed under the Training section of this Plan.
3. Maintain records of employee participation in training and provide confirmation back to the departments the list of participants;
  4. Perform exposure monitoring as requested by supervisors;
  5. Coordinate assessment of materials to determine Lead/Polychlorinated Biphenyl content as necessary to determine exposure potential;
  6. Maintain Lead/Polychlorinated Biphenyl inventory information;
  7. Provide technical guidance to personnel at all levels of responsibility concerning Lead/Polychlorinated Biphenyl, hazard evaluation, and hazard control; and,
  8. Review periodically the Lead/Polychlorinated Biphenyl management plan and revise as necessary.
- B. Rainier Commons shall:
1. Coordinate and direct all required or recommended medical surveillance for employees as dictated by regulations;

2. Provide medical consultations and examinations for workers who have been overexposed or believe they may have been overexposed to Lead/Polychlorinated Biphenyl; and
  3. Maintain medical records relating to consultations, examinations and medical surveillance as required by law.
- C. Rainier Commons shall:
1. Oversee contracts requiring disturbance of Lead/Polychlorinated Biphenyl-bearing materials;
  2. Identify requirements for compliance with applicable Federal and State Lead/Polychlorinated Biphenyl regulations in contract specifications;
  3. Coordinate material assessment and provide Lead/Polychlorinated Biphenyl-based paint inventory information;
  4. Provide Ecology with information such as Lead/Polychlorinated Biphenyl air and dust sampling results as necessary to evaluate potential exposures to employees or satisfy information requests from employees and regulatory agencies related to construction operations;
  5. Interface with contractors where enforcement of related contract provisions is required;
  6. Maintain submittal documents and related records from abatement contracts in a manner that is readily retrievable in case of a regulatory inspection;
  7. Communicate requirements to contractors;
  8. Ensure Lead/Polychlorinated Biphenyl waste is managed according to all applicable regulations of this Plan; and
  9. Ensure that paint used for encapsulating contains less than 0.06% Lead/Polychlorinated Biphenyl, which is considered Lead/Polychlorinated Biphenyl-free by the Consumers Product Safety Commission (CPSC).
- D. Rainier Commons shall:
1. Assure that all employees, subcontractors, lessees, residents and visitors who have potential to contact Lead/Polychlorinated Biphenyl containing materials are aware of the hazards associated with Lead/Polychlorinated Biphenyl; and
  2. Ensure that paint used contains less than 0.06% Lead/Polychlorinated Biphenyl, which is considered Lead/Polychlorinated Biphenyl-free by the CPSC.
- E. Supervisors shall:
1. Assure that all employees and subcontractors who have a potential to be exposed to Lead/Polychlorinated Biphenyl have received the appropriate training;
  2. Ensure that all employees who will perform abatement to Lead/Polychlorinated Biphenyl-based paint have completed training through an approved Lead/Polychlorinated Biphenyl abatement worker class;



3. Assure that employees under their control follow the Lead/Polychlorinated Biphenyl-based paint work practices described in this program;
  4. Arrange for exposure monitoring through L&I where needed to document exposure levels or provide negative exposure assessments;
  5. Initiate medical surveillance for any employee who has the potential for exposure to Lead/Polychlorinated Biphenyl as outlined in 29 CFR 1910.1025 or 29 CFR 1926.62;
  6. Coordinate assessment of materials to determine Lead/Polychlorinated Biphenyl content as necessary to determine exposure potential;
- F. Employees, shall:
1. Perform his/her work as safely as possible and follow all safety procedures;
  2. Comply with the provisions of the O&M Plan and work practices identified for individual tasks; and
  3. Report existing health or safety hazards to the supervisor.

## Glossary of Terms

**Abatement:** A set of measures designed to eliminate or reduce Lead/Polychlorinated Biphenyl-based paint hazards in residential, public, or commercial buildings, bridges, or other structures or superstructures in accordance with standards established by Ecology, which may include: (a) the removal of Lead/Polychlorinated Biphenyl-based paint and Lead/Polychlorinated Biphenyl-contaminated dust, the containment or encapsulation of Lead/Polychlorinated Biphenyl-based paint, the replacement or demolition of Lead/Polychlorinated Biphenyl-painted surfaces or fixtures, and the removal or covering of Lead/Polychlorinated Biphenyl-contaminated soil; and (b) all preparation, cleanup, disposal, and post-abatement clearance testing activities associated with these measures.

**Accreditation:** Recognition by Ecology that a contractor, supervisor, inspector, risk assessor, or training provider is in compliance with the applicable requirements of working with Lead/Polychlorinated Biphenyl-based paint.

**Action level (AL):** Employee exposure, without regard to the use of respirators, to an airborne concentration of Lead/Polychlorinated Biphenyl of 30 micrograms per cubic meter of air ( $30 \mu\text{g}/\text{m}^3$ ) calculated as an 8-hour time-weighted average (TWA).

**Exposure Assessment:** The initial determination to find if any employee may be exposed to Lead/Polychlorinated Biphenyl at or above the action level. Until the assessment is completed, employees shall assume that the exposure is above the PEL, but not more than ten times the PEL. Employee protective measures shall be implemented, including respiratory, other personal protective equipment, change areas, hand washing facilities, biological monitoring, and training.

**HEPA:** High Efficiency Particulate Air. A filtering system capable of trapping and retaining at least 99.97 percent of all monodispersed particles of 0.3 micron in diameter or larger.

**Large Scale Interior and Exterior Maintenance:** The repainting of an interior or exterior area that involves the disturbance of large areas of Lead/Polychlorinated Biphenyl-based paint or multiple surfaces containing Lead/Polychlorinated Biphenyl.

**Lead/Polychlorinated Biphenyl-based paint (L/PCB-BP) :** any paint, plaster, or other surface encapsulation material containing more than 0.50 percent Lead/Polychlorinated Biphenyl by weight calculated as Lead/Polychlorinated Biphenyl metal in the dried solid, or more than 0.7 milligram per square centimeter.

**Lead/Polychlorinated Biphenyl-contaminated dust:** Dust with a Lead/Polychlorinated Biphenyl content equal to or greater than: (a) 200 micrograms per square foot ( $\mu\text{g}/\text{ft}^2$ ) in

dust collected from a floor; (b) 500  $\mu\text{g}/\text{ft}^2$  in dust collected from a window sill; or (c) 800  $\mu\text{g}/\text{ft}^2$  in dust collected from a window well (trough).

**Lead/Polychlorinated Biphenyl-free:** (Applies to building condition assessments only. O&M work may require exposure monitoring even if the Lead/Polychlorinated Biphenyl based paint is below the L/PCB-BP definition). Means (except for factory-applied coatings on metal components) contains no Lead/Polychlorinated Biphenyl-based paint; or meeting all of the following conditions:

- a. All interior surfaces of the affected property contain no L/PCB-BP;
- b. All exterior surfaces of the affected property coated with L/PCB-BP that were chipping, peeling, or flaking have been restored without Lead/Polychlorinated Biphenyl-based paint;
- c. No exterior surfaces of the affected property coated with L/PCB-BP are chipping, peeling, or flaking; and
- d. The owner of an affected property submits to Ecology a certification by an accredited Lead/Polychlorinated Biphenyl paint inspection contractor that no exterior painted surface containing L/PCB-BP is chipping, peeling, or flaking.

**Lead/Polychlorinated Biphenyl paint maintenance and repainting:** In-place management or interim control of a Lead/Polychlorinated Biphenyl-containing substance including, but not limited to, the following activities: (a) removal of loose, chipping, or peeling paint; (b) limited replacement or repair of defective components or other substrates; (c) the removal and replacement of windows and related trim; or (d) other measures to prepare **US EPA approved** Lead/Polychlorinated Biphenyl paint for recoating with a Lead/Polychlorinated Biphenyl-free product, encapsulation, or enclosure.

**Lead/Polychlorinated Biphenyl paint removal and demolition:** A service that involves the stripping or other removal of a Lead/Polychlorinated Biphenyl-containing substance from a coated surface, or the removal or demolition of components coated with a Lead/Polychlorinated Biphenyl-containing substance, excluding steel structures.

**Medical Removal Protection:** The removal of an employee from exposure to Lead/Polychlorinated Biphenyl when the employee's blood Lead/Polychlorinated Biphenyl level is at or above 50 micrograms per deciliter of blood ( $\mu\text{g}/\text{dl}$ ).

**O & M:** Operations and Maintenance

**Permissible Exposure Limit (PEL):** The OSHA limit for Lead/Polychlorinated Biphenyl exposure. It is 50  $\mu\text{g}/\text{m}^3$ , averaged over an 8-hour workday, commonly referred to as the Time-Weighted Average, or TWA.

**Project Manager:** A person in Facilities Maintenance who manages large scale projects and is responsible for ensuring that the contractor conforms to all applicable codes and regulations including, but not limited to, L/PCB-BP.

**Residential building:** A privately or publicly owned structure, including a house, apartment building, rooming house, hotel, motel, or hospital, which may serve as a permanent or temporary domicile.

**Shoe Mold:** Strips off quarter round wood commonly used where baseboards meet the floor.

**µg/dl:** Micrograms per deciliter. A deciliter is 10 milliliters or 10 cubic centimeters.

**XRF:** X-Ray Fluorescence analyzer. A device that measures the Lead content in paint and other materials. Readings are expressed in milligrams of Lead per square centimeter ( $\text{mg}/\text{cm}^2$ ).

## Applicable Regulations

In the State of Washington, Lead/Polychlorinated Biphenyl is regulated under the following statutes:

For Rainier Commons employees exposed to Lead/Polychlorinated Biphenyl during routine O&M, Rainier Commons is required to follow OSHA 29 CFR 1910.1025, Occupational Exposure to Lead/Polychlorinated Biphenyl. If the work is characterized as construction, then Rainier Commons' employees are required to follow OSHA 29 CFR 1926.62, Occupational Exposure to Lead/Polychlorinated Biphenyl in Construction Work. Construction work is defined in the Standard as "construction, alteration, or repair, or all of the above, including but not limited to, renovation, demolition, reconstruction, refurbishing, restoration, painting, and decorating".

Both regulations are essentially similar, except for training requirements. In OSHA 29 CFR 1910.1025, if employees have a potential to be exposed to Lead/Polychlorinated Biphenyl at any level, they must be informed of Appendix A and B of the Standard. In OSHA 29 CFR 1926.62, the training requirements make reference to OSHA's Hazard Communication Standard for the Construction Industry, 29 CFR 1926.59. In addition, OSHA 29 CFR 1926.62 requires a training program for all employees who are subject to exposure to Lead/Polychlorinated Biphenyl at or above the action level on any day or who are subject to exposure to Lead/Polychlorinated Biphenyl compounds which may cause skin or eye irritation.

For Lead/Polychlorinated Biphenyl-based paint abatement the WAC has promulgated Procedures for Abating Lead Containing Substances from Buildings. Lead/Polychlorinated Biphenyl-based paint abatement is a complex, requirements driven operation, and is only performed by trained and qualified personnel.

Other environmental, health, and safety regulations, and codes and standards that may be applicable include:

- Environmental Protection Agency (EPA) 40 CFR Parts 260-265 and 268, Resource Conservation and Recovery Act (RCRA).
- Federal Department of Transportation (DOT) Hazardous Substances Title 49 CFR Parts 171-177.

Guidance documents on Lead/Polychlorinated Biphenyl include:

- National Institute of Building Sciences, Lead/Polychlorinated Biphenyl-Based Paint Operations and Maintenance Work Practices Manual.
- Department of Housing and Urban Development (HUD), Guidelines for the Evaluation and Control of Lead/Polychlorinated Biphenyl-Based Paint Hazards

## Assessment of Conditions

There are certain procedures to be followed when determining the existence of Lead/Polychlorinated Biphenyl and Lead/Polychlorinated Biphenyl-based paint and assessing the risk to employees and /or building occupants. Regulated situations may initiate the need for assessment.

Lead/Polychlorinated Biphenyl exposure from normal maintenance work, which might include Lead/Polychlorinated Biphenyl containing materials such as solder or Lead/Polychlorinated Biphenyl-based paint, and which falls under OSHA 29 CFR 1926.62, will be initially monitored to assess employee exposure levels. Depending on the exposure levels, steps as specified in OSHA 29 CFR 1926.62 will be taken. Lead/Polychlorinated Biphenyl determination in materials such as solder may be based on material safety data sheet (MSDS) information. If MSDS is not available, Lead/Polychlorinated Biphenyl exposure may be estimated from past assessments. For Lead/Polychlorinated Biphenyl-based paint, use the methods specified under Monitoring and Sampling.

In reference to abatement of Lead/Polychlorinated Biphenyl-based paint, assessments may be made:

- At the discretion of the Project Manager, or other designated Rainier Commons representative;
- When proposed maintenance work may expose building occupants and/or residents to Lead/Polychlorinated Biphenyl-containing paint and/or dust;
- When elevated blood Lead/Polychlorinated Biphenyl levels are reported in employees or building occupants/residents;
- When an employee or building occupant experiences symptoms which are indicative of Lead/Polychlorinated Biphenyl poisoning;
- When performing risk assessment activities in the Rainier Commons owned Facility;
- When specifically requested by a representative of Ecology or other appropriate state agency; and
- When developing the program and/or scope of work for the planned renovation of an existing facility.

## Monitoring and Sampling

This section covers Lead/Polychlorinated Biphenyl-based paint abatement. For construction and renovation monitoring and sampling, refer to the previous section, Assessment of Conditions.

Generally, buildings constructed after 1978 can be assumed to be Lead/Polychlorinated Biphenyl-free. For buildings constructed prior to 1978, Lead/Polychlorinated Biphenyl-based paint assessments must be performed for any surface that will be disturbed and is suspected of containing Lead/Polychlorinated Biphenyl-based paint except where it is documented that the building received a complete interior renovation after all interior components were demolished and removed from the structure. Lead/Polychlorinated Biphenyl-based paint located under newer coatings must also be identified. The assessment may use any of the following methods:

- Referencing existing building surveys, construction notes or as-built drawings may be used where the surfaces involved are referenced. Renovation file notes and updated drawings may be used to identify surface replacements.
- Substrate testing using an XRF in-paint analyzer, a Lead/Polychlorinated Biphenyl swab, or by collecting a sample of the intact paint and submitting it to an accredited laboratory for Lead/Polychlorinated Biphenyl analysis.
- Dust wipe tests.
- Lead/Polychlorinated Biphenyl testing on the windows and floors on surfaces in question.
- Visual inspection of condition of paint.
- Soil tests for Lead/Polychlorinated Biphenyl contamination.

If a Lead/Polychlorinated Biphenyl-based paint inventory exists for the surfaces involved in the work, Project Managers shall refer to the inventory for the location of Lead/Polychlorinated Biphenyl-based paint. If an inventory does not exist, and the building was constructed or renovated prior to 1980, substrate testing will be required to ascertain the existence of Lead/Polychlorinated Biphenyl-based paint. If possible, reference should be made to as-built drawings to ascertain the location of Lead/Polychlorinated Biphenyl-based painted structures.

### **X-ray Fluorescence (XRF)**

XRF is used to identify Lead content of flat surfaces. It is the sampling method of choice because it is accurate, results are immediate, and replaces the time-consuming method of obtaining a paint chip sample and analyzing it in a laboratory. Direct reading XRFs provide the operator with a readout of Lead concentration in paint in terms of Lead per square centimeter ( $\text{cm}^2$ ). Past exterior paint samples submitted for analytical laboratory analyses shows lead and PCBs to be present in each sample result. Therefore, a correlation exists whereby if XRF shows the presence of lead, then PCBs are likely to be present as well.

### **Paint Chip Sampling**

Paint chip sampling may be used to:

- Clarify an inconclusive XRF result.
- Test a surface that does not lend itself to XRF instrumentation, as defined by the instrument's manufacturer (for example, moldings, windows, playground equipment, and other surfaces that are not flat).
- Determine the percent of Lead/Polychlorinated Biphenyl to identify material that must be disposed as a hazardous waste. (However, the material must be tested according to Toxicity Characteristic Leaching Procedures (TCLP).

### **Spot Testing Using Sodium Rhodonzonate (Lead/Polychlorinated Biphenyl Swabs)**

This method is not intended to measure the concentration of Lead/Polychlorinated Biphenyl but to determine if Lead/Polychlorinated Biphenyl is present. A color change as specified in the test kit directions (i.e., pink) indicates the likely presence of Lead/Polychlorinated Biphenyl paint. The test can alert the user to the presence of Lead/Polychlorinated Biphenyl in paint so that proper precautions can be taken while removing it. If when using this type of spot testing no color change occurs, this should not be interpreted as the absence of Lead/Polychlorinated Biphenyl.

Accordingly, before concluding an area or surface does not contain Lead/Polychlorinated Biphenyl-based paint, XRF or paint chip sampling is required.

### **Surface Wipe Testing**

Surface Wipe Testing may be required under the following conditions:

- To perform a risk assessment of the Rainier Commons Facility;
- To determine the effectiveness of work practices and/or decontamination activities.

Wipe samples for clearance will be conducted when required by regulation, where required by the Project Manager in consultation with Environmental Safety, or by contract specification. Samples will be in accordance with procedures contained in Guidelines for the Evaluation and Control of Lead/Polychlorinated Biphenyl-Based Paint Hazards in Housing, Appendix 13.1: Wipe Sampling for Settled Lead/Polychlorinated Biphenyl-Contaminated Dust. Samples may be taken by EPA, Ecology, or by an outside Rainier Commons appointed Industrial Hygiene Consultant.



## **Selection of Units and Locations within Units for Lead/Polychlorinated Biphenyl-Based Paint Testing**

Large-scale Lead/Polychlorinated Biphenyl-based paint inspections are usually performed by a contractor to determine whether Lead/Polychlorinated Biphenyl is present in a house, dwelling unit, a residential building, or other building and if present, to identify which building components contain Lead/Polychlorinated Biphenyl. Where O&M work involving a wall, window, or other surface is going to be performed, the assessment can be performed by a qualified Rainier Commons employee or subcontractor. Since exposure is based on the amount of Lead/Polychlorinated Biphenyl present and the specific operation, an assessment should be performed for each operation. See Appendix A for a list of operations that have been assessed, described as de minimus, and do not require controls. This list will be updated as additional tasks are assessed.

When selecting units for assessment, a systematic approach should be used. Generally, each room's components should be tested. A component is defined as a door, wall, molding, window sash and trim, ceiling, stairs or other component. A standardized inspection record containing the following minimum information is to be completed as components are checked. This information will include: sample identification number, substrate, component, test location, XRF reading, result, classification (positive, negative, or inconclusive), laboratory result, units ( $\text{mg}/\text{cm}^2$ , %), and final classification. Areas that are not able to be tested with the XRF due to surface configuration may be sampled using the paint chip method.

When testing multiple units, only the project manager will determine which components will be tested. Protocols for Lead/Polychlorinated Biphenyl-based paint inspection can be found in the HUD Guidelines for the Evaluation and Control of Lead/Polychlorinated Biphenyl-Based Paint Hazards in Housing, Chapter 7.

Rainier Commons corporate for the overall maintenance of the Facility shall maintain a record of the results of all-Lead/Polychlorinated Biphenyl paint testing (Appendix E, Lead/Polychlorinated Biphenyl Based Paint Survey).

## **Exposure Monitoring**

Exposure monitoring should be conducted for maintenance activities involving the disturbance of Lead/Polychlorinated Biphenyl-based paint, unless the same type of job has been assessed previously. In this case, a review of the previous assessment can be used to decide if additional monitoring is necessary.

### **Exposure Monitoring**

If the assessment determines that Lead/Polychlorinated Biphenyl exposure should be monitored; personal exposure monitoring may be conducted. Monitoring and Sampling and analysis will be performed in accordance with NIOSH Method 7082, Sampling Airborne Particulate for Lead/Polychlorinated Biphenyl. Analysis will be conducted by an American Industrial Hygiene Association accredited laboratory. Results in excess of the Action Level (AL) will require additional employee protection measures in accordance with either OSHA 29 CFR 1926.62 or OSHA 29 CFR 1910.1025, depending how the work is classified, that is, construction or general industry.

Exposure monitoring for private contractors' employees will be performed by an independent industrial hygiene consultant coordinated by the Project Manager.

As required by the Project Manager, area samples may be taken during large-scale maintenance work to determine if Lead/Polychlorinated Biphenyl particulates are infiltrating into occupied spaces. Sampling and analysis will be performed as described above. Results in excess of the AL of  $30 \mu\text{g}/\text{m}^3$  will require additional employee protection measures as outlined in Personal Hygiene Practices, Respiratory Protection, and Appendix D of this Plan.

Affected employees, subcontractors, lessees, residents and visitors must be notified in accordance with applicable regulations.

## Training

### **Lead/Polychlorinated Biphenyl Awareness**

Where there is a potential exposure to airborne Lead/Polychlorinated Biphenyl at any level, and the work is classified as repair or maintenance, and not construction, the employee must be informed

of the contents of 29 CFR 1910.1025 Appendix A (Substance Data Sheet for Occupational Exposure to Lead/Polychlorinated Biphenyl) and Appendix B (Employee Standard Summary). This information transmission must be repeated at least annually for each employee. The OSHA Lead/Polychlorinated Biphenyl in Construction Standard, 29 CFR 1926.62, does not require Lead/Polychlorinated Biphenyl awareness training.

### **Lead/Polychlorinated Biphenyl-Worker Training**

OSHA 29 CFR 1910.1025 and 1926.62 require that an employee health and safety program be implemented for all employees involved in the disturbance (e.g., sanding, planing, scraping, etc.) of Lead/Polychlorinated Biphenyl-based paint and who are exposed to Lead/Polychlorinated Biphenyl in excess of  $30 \text{ ug/m}^3$  on any day during a given year. Training must be repeated each year that the employee may have such an exposure. This category would include employees who have the potential to disturb Lead/Polychlorinated Biphenyl-bearing paint in the course of normal activities such as carpenters, painters and plumbers who use Lead/Polychlorinated Biphenyl containing solders. Rainier Commons will provide, as requested, the training. It will consist of:

- The hazards associated with Lead/Polychlorinated Biphenyl;
- Employee information concerning sources of Lead/Polychlorinated Biphenyl, including warning labels, signs and material safety data sheets (MSDS);
- Content of the Lead/Polychlorinated Biphenyl Standard, either General Industry or Construction, whichever is applicable;
- Specific nature of the operations which could result in exposure to Lead/Polychlorinated Biphenyl above the action level;
- Purpose, proper selection, fitting, use and limitations of respirators;
- Purpose and description of the medical surveillance and medical removal programs, including health effects of Lead/Polychlorinated Biphenyl exposure and potential reproductive consequences.
- Engineering controls and work practices for Lead/Polychlorinated Biphenyl-related work;
- Content of this O&M Plan;
- Instructions to employees that chelating agents should not routinely be used to remove Lead/Polychlorinated Biphenyl from their bodies and should not be used at all except under the direction of a licensed physician; and
- Employee's right of access to records under 29 CFR 1910.20.

### **Lead/Polychlorinated Biphenyl-Paint Abatement Worker Training**

All employees and subcontractors involved in the abatement of Lead/Polychlorinated Biphenyl-based paint must attend a WAC approved hands-on training course and pass the exam. Abatement means a set of measures designed to eliminate or reduce Lead/Polychlorinated Biphenyl-based paint hazards. The course must be repeated every three years. The course includes the following topics:

- The health effects and routes of entry of Lead/Polychlorinated Biphenyl exposure;
- Common sources of exposure to Lead/Polychlorinated Biphenyl
- Work practices necessary to minimize Lead/Polychlorinated Biphenyl dust concentrations, including work area preparation, work area decontamination and waste disposal.
- Requirements of regulations and standards established by the WAC, L&I and OSHA.
- Relevant worker protection issues, including respiratory protection, protective clothing, safety equipment, medical surveillance, and personal hygiene.

## Medical Surveillance

In accordance with OSHA 29 CFR 1910.25 and 1926.62, employees who are performing construction work and are occupationally exposed on any day to Lead/Polychlorinated Biphenyl at or above the AL, shall have initial medical surveillance consisting of biological monitoring in the form of blood sampling and analysis for Lead/Polychlorinated Biphenyl and zinc protoporphyrin (ZPP) levels. Additionally, employees who are or may be exposed at or above the AL for more than 30 days in any consecutive 12 months will be offered the following medical surveillance:

- blood sampling and analysis at least every 2 months for the first 6 months and every 6 months thereafter;
- workers with blood Lead/Polychlorinated Biphenyl levels at or above 40 ug/dl will have a blood test at least every two (2) months until two (2) consecutive tests (a week apart) show levels less than 40 ug/dl;
- if an employee is medically removed due to elevated blood Lead/Polychlorinated Biphenyl levels, a second (follow-up) blood sampling must be performed within two weeks after the employer receives the results of the first test; and,
- blood tested upon termination of employment.

A ZPP is required on each occasion that a blood Lead/Polychlorinated Biphenyl level measurement is made.

Employees will receive the confidential results of blood tests. All medical records remain confidential unless the employee grants permission for his/her records to be released. In accordance with OSHA 29 CFR 1910.1025, employees not working in construction shall have medical surveillance if they are exposed above the AL for more than 30 days per year. Employees will be offered the following medical surveillance:

- Blood Lead/Polychlorinated Biphenyl and ZPP analysis shall be performed at least every 6 months.
- At least every 2 months for each employee whose last blood sampling and analysis indicated a blood Lead/Polychlorinated Biphenyl level at or above 40 µg/dl of whole blood.
- The frequency shall continue until two consecutive blood samples and analyses indicate a blood Lead/Polychlorinated Biphenyl level below 40 µg/dl of whole blood.
- At least monthly during the removal period of each employee removed from exposure to Lead/Polychlorinated Biphenyl due to an elevated blood Lead/Polychlorinated Biphenyl level.
- Whenever the results of a blood Lead/Polychlorinated Biphenyl test indicate that an employee's blood Lead/Polychlorinated Biphenyl level is at or above 60 µg/dl and the employee is exposed to Lead/Polychlorinated Biphenyl at or above the action level, the employer shall provide a second (follow-up) blood sampling test

within two weeks after the employer receives the results of the first blood sampling test.

#### **Medical Consultation**

A medical examination shall be provided to each person enrolled in the Lead/Polychlorinated Biphenyl medical surveillance program if at any time the individual experiences symptoms consistent with Lead/Polychlorinated Biphenyl intoxication, needs consultation concerning the potential effects of past Lead/Polychlorinated Biphenyl exposure or on the ability to procreate or carry a healthy child, or has difficulty breathing during fit-testing or the use of a respirator. The examination shall be conducted annually for any individual who has had a blood-Lead/Polychlorinated Biphenyl level of 40 ug/dl or greater or has been medically removed in the past 12 months. The content of the physical exam shall be at the discretion of the attending physician but shall include at a minimum the elements listed in OSHA 29 CFR 1926.62 (j) (3) for construction workers or OSHA 29 CFR 1910.1025 (j)(3) for workers not involved in construction.

#### **Enrollment Information**

Rainier Commons must provide the following information with each new employee enrolled:

- A description of the affected employees duties as related to potential Lead/Polychlorinated Biphenyl exposure;
- The employees anticipated exposure level to Lead/Polychlorinated Biphenyl and other toxic substances (if applicable); and
- A description of personal protective equipment to be used.

The employee must provide the attending physician with prior blood Lead/Polychlorinated Biphenyl determinations and written medical opinions related to Lead/Polychlorinated Biphenyl exposure.

#### **Chelation**

OSHA prohibits prophylactic chelation except by a licensed physician and conducted in a clinical setting with thorough and appropriate medical monitoring.

#### **Medical Removal Protection**

Any employee who has a blood Lead/Polychlorinated Biphenyl level of 50 ug/dl or more shall be excluded from work with potential for Lead/Polychlorinated Biphenyl exposure until the employee has had two (2) consecutive blood samples at or below 40ug/dl.

An employee may also be excluded from Lead/Polychlorinated Biphenyl-related work when written results of a medical consultation determine that the employee may be at increased risk of impairment to the employees' health from exposure to Lead/Polychlorinated Biphenyl. The employee may return to former duties upon receipt of a written opinion from the consulting physician that the conditions placing the employee at increased risk are no longer present or of material concern.

Where the employee is unable to return to normal duties within 18 months, Rainier Commons shall make a final determination based upon the employee's medical evaluation identifying conditions that could allow an employee to safely return to work or a final medical determination that the employee is incapable of ever safely returning to work. In the event that the employee is found incapable of performing Lead/Polychlorinated Biphenyl-related work, the employee's department shall attempt to find an alternate job assignment in the employee's job classification that does not have Lead/Polychlorinated Biphenyl exposure. In the event that no acceptable alternate assignment can be found, the employee's options shall be reviewed. These may include disability retirement, termination, or other options as determined by Rainier Commons.

## **Personal Hygiene Practices**

Rainier Commons recognizes that even when airborne Lead/Polychlorinated Biphenyl exposure levels are low, the potential exists for significant Lead/Polychlorinated Biphenyl ingestion due to poor personal hygiene practices. No eating, drinking, application of cosmetics (including lip balm) or smoking is permitted at work sites where Lead/Polychlorinated Biphenyl and Lead/Polychlorinated Biphenyl-based paints are being disturbed. Workers shall wash their hands, arms and faces prior to eating, drinking, applying cosmetics or smoking.

When chemical strippers are used to remove Lead/Polychlorinated Biphenyl-based paint, appropriate impermeable gloves and chemical resistant clothing shall be worn for worker protection as well as safety goggles or face shields to protect the eyes from chemical splashes. Portable eye wash equipment must be available on site. The area where the chemical stripper is being used must be well ventilated to avoid exposure to potentially toxic vapors.



## Respiratory Protection

Workers engaged in Lead/Polychlorinated Biphenyl work will require respiratory protective equipment when industrial hygiene air monitoring indicates anticipated exposures in excess of the PEL.

The use of respiratory protection shall be in accordance with OSHA 29 CFR 1910.134, Respiratory Protection. All workers must be medically evaluated to determine the ability of the worker to perform the work while wearing a respirator. Training in the care, use and fitting of the respirator in addition to fit-testing is conducted by a Rainier Commons identified consultant. Any worker who is not authorized to wear a respirator will be prohibited from engaging in activities, which may expose the worker to airborne Lead/Polychlorinated Biphenyl if exposures are anticipated to exceed the OSHA permissible exposure level.

All employee respirators worn at the work site must be placed in a plastic bag prior to leaving the site and thoroughly cleaned before being worn again. Cleaning should include inspection of the respirator and replacement of worn parts. Fit-checks should be done each time the respirator is worn. The medical exam, fit-test and training must be repeated annually.

Respirators shall be selected as follows:

Airborne concentration of Lead/Polychlorinated Biphenyl	Required respirator <sup>1</sup>
Not in excess of 50 $\mu\text{g}/\text{m}^3$	Half-mask air-purifying respirator equipped with high efficiency filters <sup>2,3</sup> .
Not in excess of 250 $\mu\text{g}/\text{m}^3$	Full facepiece, air-purifying respirator with high efficiency filters <sup>3</sup> .
Not in excess of 500 $\mu\text{g}/\text{m}^3$	(1) Any powered, air-purifying respirator with high efficiency filters <sup>3</sup> ; or (2) Half-mask supplied-air respirator operated in positive-pressure mode <sup>2</sup> .
Not in excess of 1000 $\mu\text{g}/\text{m}^3$	Supplied-air respirators with full facepiece, hood, helmet, or suit, operated in positive pressure mode.
Greater than 1000 $\mu\text{g}/\text{m}^3$ , unknown concentration or fire fighting.	Full facepiece, self-contained breathing apparatus operated in positive-pressure mode.

1. Respirators specified for higher concentrations can be used at lower concentrations of Lead/Polychlorinated Biphenyl.

2. Full face piece is required if the Lead/Polychlorinated Biphenyl aerosols cause eye or skin irritation at the use concentrations.
3. A high efficiency particulate filter means 99.97 percent efficient against 0.3 micron size particles.

## **Occupant Health and Safety**

Disturbance of Lead/Polychlorinated Biphenyl paint surfaces within a building's interior should only occur under proper work controls. Methods of controlling Lead/Polychlorinated Biphenyl exposure to other occupants may include isolating the area by use of plastic sheeting and sealing all ventilation ducts in the area of the work and/or turning off and securing the ventilation system (lockout-tag-out). Other methods to minimize distribution of Lead/Polychlorinated Biphenyl dust may include wet sanding and the use of HEPA vacuum cleaners. (See Work Practices Section).

### **Notification to Building Occupants**

Prior to the initiation of any large scale interior or exterior work involving Lead/Polychlorinated Biphenyl-based paint, the Project Manager will forward Lead/Polychlorinated Biphenyl-based paint information to the appropriate department chair or director. This bulletin will contain the general scope of work to be done, dates for the start and proposed completion of the work, and the precautions, which will be employed to protect building occupants. This bulletin will also alert staff to the increased hazard that Lead/Polychlorinated Biphenyl contamination may present for pregnant or nursing women. Based on a determination by Rainier Commons in consultation by a CIH, further measures to reduce potential Lead/Polychlorinated Biphenyl exposure will be taken if necessary.

## **Signage**

Warning signs shall be posted at each job site where the employees exposure to Lead/Polychlorinated Biphenyl is above the PEL. Where an exposure assessment has not been completed, signs shall be posted until the results are known. The signs shall consist of the following wording:

**WARNING  
HAZARD  
LEAD/POLYCHLORINATED BIPHENYL WORK AREA  
NO SMOKING, EATING OR DRINKING**

**For further information contact (Supervisor's name, location, phone) or the  
Department of Labor & Industries.**

## Work Practices

Work practices have been divided into 3 categories:

1. Operations and Maintenance (O&M) tasks that have been assessed and do not require any precautions and/or protective measures. (See Appendix B)
2. Operations and Maintenance (O&M) tasks that have not been assessed and may require precautions and/or protective measures. (See Appendix C)
3. Operations and Maintenance (O&M) tasks that may require other precautions and/or protective measures. (NIBS Work Practices).

### Acceptable Practices (Do's)

- If the condition of an interior or exterior surface (e.g. walls, trim, ceiling, doors, etc.) does not require sanding or scraping prior to repainting, and the surface is in good condition, the surface may be painted even if the paint has not been tested to determine its Lead/Polychlorinated Biphenyl content.
- Doors or other building components, which can be removed without disturbing the painted surface can be removed without the use of any special protection or requirements. The disposal of these items if found to contain Lead/Polychlorinated Biphenyl must be disposed of according to the requirements specified in the Waste Disposal Section.
- If air monitoring has not been performed to characterize the job, it should be performed at the start of the job.
- If a Lead/Polychlorinated Biphenyl-based painted surface is flaking or peeling, the loose paint may be removed using wet scraping. This involves wetting the surface to be scraped (in addition to the scraping tool) with water during the entire process.
- If an interior surface must be scraped, the area will be vacated of all occupants prior to the initiation of any work and all furnishings shall be removed from the area or covered with 6 mil plastic, the floor covered with 6 mil plastic and the area secured to limit access. For exterior scraping, windows and doors in the immediate area should remain closed and secured until the preparation and required cleanup is complete.
- Window sills and the floor beneath it in residential buildings should be HEPA vacuumed, washed with trisodium phosphate (TSP) and re-vacuumed following any L/PCB-BP work
- When dust or debris from a window or other opening may contaminate an exterior area, 6 mil plastic sheeting must be securely fastened to the ground next to the work area. The ground should be covered and weighted with sheeting at least five (5) feet from the side of the building and extend three (3) feet per story being abated.

- Employees involved shall wear protective clothing as described in Personal Hygiene Practices, Page 17.
- Return air vents in the room or immediate area shall be covered.
- Debris and contaminated clothing shall be collected, placed in 4-mil plastic bags and disposed according to Waste Management practices. Debris should be sprayed with water prior to sweeping and placed in 4-mil plastic bags. A HEPA vacuum should be used to remove any visible dust from interior/exterior surfaces.

#### Unacceptable Practices (Don'ts)

- Dry sanding.
- Allowing dust to become airborne.
- Circulating dust through the ventilation system.
- Lead/Polychlorinated Biphenyl contamination of the floor/ground surrounding the work.

#### Large Scale Interior and Exterior Maintenance

Where the repainting of an interior or exterior area of damaged and/or deteriorated L/PCB-BP would involve the disturbance of large areas or multiple surfaces, and would be performed by Rainier Commons employees, employees must contact Rainier Commons corporate to review the scope of work and develop specific protective measures. L/PCB-BP work cannot be initiated until an agreed upon plan of action specifying work methods, required employee training and occupant protection, and testing requirements are defined and implemented. Where L/PCB-BP work is contracted out, see Contract Work below.

#### Contract Work

Rainier Commons corporate will review all specifications for work associated with L/PCB-BP to be performed by contractors.

## OSHA Recordkeeping

In accordance with OSHA 29 CFR 1910.20, 1910.1025, and 1926.62, the following records must be kept for at least 30 years:

- exposure assessments and monitoring;
- a description of the sampling and analytical methods used;
- the type of respiratory protective devices worn; and,
- name, social security number, and job classification of the employee monitored.

In addition, Rainier Commons must keep the following medical records for employees subject to medical surveillance for at least 30 years:

- name, social security number, and description of the duties of the employee;
- a copy of the physician's written opinions;
- results of any airborne exposure monitoring done on or for that employee and provided to the physician; and,
- any employee medical complaints related to exposure to Lead/Polychlorinated Biphenyl.

In addition, Rainier Commons must keep the following medical records for at least 30 years:

- a copy of the medical examination results including medical and work history required under OSHA 1926.62 (j);
- a description of the laboratory procedures and a copy of any standards or guidelines used to interpret the test results or references to that information;
- a copy of the results of biological monitoring.

If the employee was removed from Lead/Polychlorinated Biphenyl work under the medical removal provisions, the following records must be maintained by Rainier Commons for at least the duration of the employee's employment:

- the name and social security number of the employee;
- the date of each occasion that the employee was removed from current exposure to Lead/Polychlorinated Biphenyl as well as the corresponding date on which the employee was returned to his or her former job status;
- a brief explanation of how each removal was or is being accomplished;
- a statement with respect to each removal indicating whether or not the reason for the removal was an elevated Lead/Polychlorinated Biphenyl level.

Other information, such as ongoing maintenance and renovation activities, wipe tests, air sampling and Lead/Polychlorinated Biphenyl paint surveys shall be kept by Rainier Commons corporate.

## Waste Disposal Requirements

This section describes the segregation, packing, labeling, and management of these waste materials generated by work on the Rainier Commons Facility.

### Identification of Hazardous Materials

The following materials shall be managed as Lead/Polychlorinated Biphenyl-contaminated hazardous waste for disposal:

- Lead/Polychlorinated Biphenyl paint chips, flakes and dusts removed by the contractor;
- Large-scale polyethylene material and masking tape;
- Lead/Polychlorinated Biphenyl-contaminated miscellaneous disposable tools, brushes, wipes, etc.;
- Lead/Polychlorinated Biphenyl-contaminated miscellaneous disposable personal protective equipment;
- Lead/Polychlorinated Biphenyl-contaminated paint remover compound (with material safety data sheet for identification);
- Lead/Polychlorinated Biphenyl-contaminated paint remover neutralizer (with material safety data sheet for identification);
- Lead/Polychlorinated Biphenyl contaminated paint rinse water;
- Lead/Polychlorinated Biphenyl-contaminated paint drop cloths to collect Lead/Polychlorinated Biphenyl contaminated material;
- Lead/Polychlorinated Biphenyl contaminated caulking or glazing compounds.

### Packaging

Rainier Commons shall provide approved drums, drum liners, containers, and labels required for the proper disposal of hazardous materials. Contractors shall provide the plastic bags to contain the hazardous material.

The Contractor shall be responsible for the pickup and delivery of DOT approved containers for each job site.

The Contractor shall insure that all hazardous material is packaged and segregated according to the following parameters:

- Removed abatement compounds, including cloth and paint, shall be placed in a plastic bag(s) meeting the following requirements:
  - Hazardous material, e.g., Lead/Polychlorinated Biphenyl paint chips, will be placed in an approved DOT drum and drum liner.
  - Each drum shall be filled to capacity with two (2) inches of head space and sealed by installing a gasket and locking ring.



- o Drums containing hazardous waste may be moved from job site to job site until filled. The Contractor is prohibited from transporting the drum off the Rainier Commons Facility without approval for the project(s).
- Liquid material (neutralizer and contaminated rinse water) shall be placed in a DOT approved container, filled to capacity and sealed with drum bung.
- Contaminated personal protective equipment, polyethylene material, and miscellaneous tools shall be bagged and placed in a container. Placing these items in a container with removed abatement compounds is prohibited.

The Contractor shall properly seal and keep the hazardous material container sealed during storage, except when it is necessary to add or remove hazardous material.

The mixture of municipal waste, i.e., food packaging and beverage containers, and hazardous materials is prohibited.

#### **Labeling**

Rainier Commons or its contractor will provide appropriate label(s) for hazardous material containers. The label(s) will be affixed to the side of the container when the hazardous material is first placed in the container and the label(s) will be affixed so that they are within three inches of each other.

#### **Marking**

The Contractor shall be responsible for the proper marking of each hazardous material container according to the following:

1. Hazardous Waste Markings
  - a. The Contractor will place the date in the designated area on the hazardous waste label when the hazardous material was placed in the container.
  - b. The Contractor will place the Proper Shipping Name, listed below, in the designated area on the label according to the following:
    1. Lead/Polychlorinated Biphenyl Paint Solids - Hazardous Waste Solid, N.O.S. / 9 / NA 3077/ PG III (D008)
    2. Peel-Away Solids - Hazardous Waste Solid, N.O.S. / 9 / NA 3077/ PG III (D008)
    3. Liquid Paints - Waste Paint Related Material / 3 / UN 1263 / PG II
    4. Paint Rinsate - Waste Caustic Alkali Liquids, N.O.S. / 8 / UN 1719/ PG II / (D002, D008)
    5. Lead/Polychlorinated Biphenyl Paint Chips & Soil - Hazardous Waste Solid, N.O.S. / 9 / NA 3077/ PG III (D008)
    6. Miscellaneous Equipment Contaminated with Lead/Polychlorinated Biphenyl - Hazardous Waste Solid, N.O.S. / 9 / NA 3077/ PG III (D008)
2. Rainier Commons Project Information
  - a. Rainier Commons's Project Number will be placed on the hazardous waste label in the upper of right hand corner with a permanent marker.

- b. Rainier Commons's Contract Number will be placed on the hazardous waste label in the upper of right hand corner with a permanent marker.

#### **Security and Temporary Storage**

The Contractor may temporary store the hazardous material container at the job site, provided that the Contractor complies with the following:

- Fulfills the requirements in Section A through Section E of this subsection;
- Ensures that all required labels and markings can be visually seen from a distance or without moving the container;
- Provides security of the hazardous material container to prevent the disturbance and physical contact of the waste by unknowing or unauthorized persons or animals; and
- Removes and delivers the hazardous material container within three (3) days of the container reaching its capacity or the completion of the project.

#### **Environmental Protection**

The employees, subcontractors, lessees, residents and visitors agree to indemnify, hold harmless and defend Rainier Commons (the "Indemnities") from and against any and all liabilities, claims, penalties, forfeitures, suits, and the costs and expenses incident thereto (including cost of defense, settlement and attorneys' fees), which the Indemnities, or any on of them, may hereinafter incur, become responsible for or pay as a result of death or bodily injury to any person, destruction or damage to any property, contamination of or adverse effects on the environment, or any violation of governmental laws, regulations or orders to the extent that such damage was caused by the employees, subcontractors, lessees, residents and visitors: (i) breach of any term or provision of this contract; (ii) the failure of any warranty to be true, accurate and complete; and (iii) any negligent, intentional or willful act or omission of any of them.

In addition, with respect to any liabilities, claims, penalties, forfeitures, suits or threatened suits, and the cost and expenses incident thereto relating to services under this contract and arising without regard to the fault of the Contractor, its subcontractors, their employees or agents, or one or more of the Indemnities, the Contractor will indemnify Rainier Commons and the Indemnities for their costs, including cost of defense, settlement and reasonable attorney's fees. Without limitation, the foregoing sentence will apply to any governmentally imposed or privately negotiated Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) response costs and related expenses.

## **Notification**

Prior to the initiation of any abatement work, which will disturb Lead/Polychlorinated Biphenyl-based paint, L&I will be notified.

## **Program Evaluation**

The Lead/Polychlorinated Biphenyl O&M Plan is designed to minimize exposure to Lead/Polychlorinated Biphenyl. This information will be reviewed periodically and updated as necessary.

## **Appendix A**

### **Lead/Polychlorinated Biphenyl-Based Paint (L/PCB-BP) Deminimus Activities**

1. Removal of nails, screws, picture hangers, or other fasteners, etc. from a painted wall surface.
2. Removal of cover plates, switch covers, etc. from a painted surface.
3. Removal of hinge pins or painted door hinges.
4. Removal of lock hardware, closers, or other hardware accessories from a painted door.
5. Wet sanding drywall compound or spackle using a sponge.
6. Separating and removing shoe mold (base shoe) from a painted baseboard.
7. Planing painted wood with manual tools.
8. Drilling or preparing a painted door from installation of new door hardware (lock set, closers, kick plates, etc.)
9. Renailing or refastening loose building trim, moldings or panels.
10. Reglazing of window glass.
11. Removal of painted phone line or electrical wire.
12. Freeing an inoperable window.
13. Housekeeping including emptying trash, vacuuming carpets, dust mopping hallways, cleaning water fountains, buffing floors, disinfecting bathrooms.
14. Maintenance including replacing air filters, replacing toilet flush valve, replacing light bulbs, checking and repairing shower valves, unclogging a shower drain using a "snake", mechanical repair of an air-conditioning unit, and repairing a shower leak.
15. Carpentry activities including removing wooden windows to measure to make screens, sweeping out the carpentry shop, planing the edge of a door and re-install the hinges, re-hang the door, removing outside entrance door, removing the kickplate, and removing the screws.
16. Carpentry activities including removing door hinges and lockset and replacing.
17. Carpentry activities including sanding floor with "stand-behind" power disc sander, scraping floor near corner, clean-up of debris and placing debris in container.
18. Carpentry activities including wet hand scraping and wet sanding a column
19. Carpentry activities including removing wooden baseboards, cut and pull up wall-to-wall carpeting, scrape walls near baseboard, scrape carpet adhesive residue from floor, sweep floor.
20. Carpentry activities including removing window casing and wooden molding, removing the window sash, heating the glazing, scraping and removing the softened glazing, re-installing the sash, rehang the window, and installing the wooden molding.

21. Removing old plaster and re-plastering, manually sanding new plaster.
22. Maintenance activities including wet scraping of window and door.
23. Plumber activities including manually removing old Lead/Polychlorinated Biphenyl and oakum from around shower drains, heating Lead/Polychlorinated Biphenyl in an open ladle using a propane torch, pouring the molten Lead/Polychlorinated Biphenyl from the ladle into the cavity surrounding the drain, rapidly cooling the unused hot Lead/Polychlorinated Biphenyl using cooling water from a sink faucet
24. Chipping and sanding plaster.
25. Painter activities including spreading plastic material around the hot-water radiator and wet scraping old paint from hot-water radiator, folding up the plastic on the floor, broom sweeping the floor.

## **Appendix B**

### **Non-Assessed Tasks**

Operations where the activity has not been assessed, for example, where an operation is performed many times during a shift, such as drilling multiple holes to install screening on multiple windows.

## Appendix C

### **Operations and Maintenance (O&M) Tasks on L/PCB-BP That May Require Precautions And/Or Protective Measures. (National Institute of Building Sciences (NIBS) Work Practices)**

Cleaning Damaged or Deteriorated L/PCB-BP Surfaces  
Removing L/PCB-BP Chips and Debris  
Removing Small Areas of L/PCB-BP  
Wet Sanding of L/PCB-BP  
Penetrating L/PCB-BP  
Removing Components from L/PCB-BP Surfaces  
Attaching to a L/PCB-BP Surface  
Applying Coatings to L/PCB-BP Surfaces  
Installing Materials Over L/PCB-BP Surfaces  
Enclosing a L/PCB-BP Surface  
Patching a L/PCB-BP Surface  
Exposing L/PCB-BP Contaminated Cavities  
L/PCB-BP Door and Window Maintenance  
Changing Filters and Waste Bags in L/PCB-BP Contaminated HEPA Vacuums  
Cleaning Lead/Polychlorinated Biphenyl Dust Contaminated Carpet  
Landscaping in Soil Containing Elevated Levels of L/PCB-BP

Each Work Practice comes with three levels of protection, depending on the scope of the task, how long the work will continue, and especially the condition of the L/PCB-BP and substrate which will be disturbed.

The higher the Level of activity, the higher the level of preparation and worker protection required.

Level 1 is described as those activities requiring a minimal amount of preparation and worker protection because a negligible amount of Lead/Polychlorinated Biphenyl dust may be generated or disturbed.

Level 2 consists of activities producing moderate amounts of dust and debris.

Level 3 are activities which could generate substantial quantities of dust and debris.

Complex activities not specifically described in the work practices can usually be performed by modifying and combining various parts of several different work practices. For example, to replace a metal fireplace unit might require the following combination of work practices:

Removing L/PCB-BP Chips and Debris  
Removing Components from L/PCB-BP Surfaces

Attaching to a L/PCB-BP Surface  
Patching a L/PCB-BP Surface  
Exposing L/PCB-BP Contaminated Cavities

Complete information on these work practices is available in the "Lead/Polychlorinated Biphenyl-Based Paint Operations & Maintenance Work Practices Manual for Homes and Buildings", published by the National Institute of Building Sciences (NIBS), 1090 Vermont Avenue, NW, Suite 700, Washington, DC 20005-4905, 202-289-7800.



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